

What Is Claimed Is:

1. A solenoid valve, in particular for a fluid-regulated heating and/or cooling system, including a valve housing having at least one feed channel and at least one discharge channel and an electromagnetically switched valve member which establishes the connection between the feed channel and the discharge channel in one switch position and blocks it in the other switch position, the valve member being rigidly connected to an armature which can be moved by displacing fluid in a guide bushing of a magnet coil, the guide bushing being inserted into an expanded part of an opening of the magnet coil which is delimited by an annular shoulder, characterized by a damping disk (50) surrounding the armature (26), the damping disk (50) being situated between the annular shoulder (44) and an adjacent face end (42) of the guide bushing (36).
2. The solenoid valve as recited in Claim 1, wherein the armature (26) is axially movable in relation to the damping disk (50).
3. The solenoid valve as recited in one of the preceding claims, wherein an annular gap (54) between an inner circumference of the damping disk (50) and the armature (26) has a clearance of less than 0.05 mm and preferably less than 0.025 mm at least over a part of the displacement path of the armature (26).
4. The solenoid valve as recited in Claim 3, wherein the annular gap (54) has a clearance of less than 0.05 mm and preferably less than 0.025 mm over the entire displacement path of the armature (26).
5. The solenoid valve as recited in one of the preceding claims, wherein the damping disk (50) is to a limited degree axially movable between the annular shoulder (44) and the adjacent face end (42) of the guide bushing (36).
6. The solenoid valve as recited in one of the preceding claims, wherein the damping disk (50) is pressed against the face end (42) of the guide bushing (36) or the annular shoulder (44) by the fluid displaced by the armature (26) over at least a part of the displacement path of the armature (26).

7. The solenoid valve as recited in one of the preceding claims, wherein an external circumference of the damping disk (50) is situated at a radial distance from an inner wall of the expanded part (40) of the opening (24).
8. The solenoid valve as recited in one of the preceding claims, wherein the damping disk (50) is made of bronze.
9. The solenoid valve as recited in one of the preceding claims, wherein the damping disk is made of polypropylene sulfide.
10. The solenoid valve as recited in one of the preceding claims, wherein the damping disk is slotted.
11. The solenoid valve as recited in one of Claims 1 through 9, wherein the damping disk has no interruption.